

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



To:
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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing (day/month/year)	16. 8. 2005
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Applicant's or agent's file reference
R05027PCT

FOR FURTHER ACTION
See paragraph 2 below

International application No. PCT/JP2005/008813	International filing date (day/month/year) 09.05.2005	Priority date (day/month/year) 12.05.2004
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International Patent Classification (IPC) or both national classification and IPC
Int.Cl.⁷ B65H5/00, B41J2/01, 29/00

Applicant
RICOH COMPANY, LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion		26.07.2005	
Name and mailing address of the ISA/JP Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan		Authorized officer	3B 3 6 1 6
		Shinichi Shimada Telephone No. +81-3-3581-1101 Ext. 3320	

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/008813

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-13	YES
	Claims		NO
Inventive step (IS)	Claims	5, 7, 13	YES
	Claims	1-4, 6, 8-12	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

2. Citations and explanations

- D1: EP 1238812 A1 (RICOH CO., LTD.) 2002.09.11,
paragraph 0057; figure 2
- D2: EP 0473178 A2 (CANON INC.) 1992.03.04,
page 5, line 51 -- page 6, line 52; figure 1
- D3: JP 05-224571 A (RICOH CO., LTD.) 1993.09.03,
paragraphs 0022 and 0023; figure 4
- D4: JP 09-244423 A (HITACHI, LTD.) 1997.09.19,
paragraph 0015; figure 1

The subject matter of Claims 1, 2, 4, 6, and 8-11 do not appear to involve an inventive step in view of the document D1 and D2.

D1 discloses an image forming apparatus comprising a head unit, a conveyance unit, a charging unit supplying AC voltage on the conveyance unit. D2 discloses an image forming apparatus comprising a head unit, a conveyance unit, a charging unit, and a charge eliminating unit, whereas the charging unit supplies DC voltage on the conveyance unit.

In relation to Claim 8, see page 8, lines 27-30 of D2.

In relation to Claim 9, see page 6, lines 54-57 of D2.

The subject matter of Claim 3 does not appear to involve an inventive step in view of the document D1, D2, and D3.

D3 discloses a pressure roller used as means for supplying voltage on a sheet.

The subject matter of Claim 12 does not appear to involve an inventive step in view of the document D1, D2, and D4.

D4 discloses a charge eliminating unit whose position is switched by control means.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Reference sign 30 is assigned to the sheet reversing unit in line 6 on page 19 of the description, whereas 30 is assigned to the insulated layer in line 23 on the same page.